

# SUMMARY

## Introduction

### Background

This proposed amendment of the resource management plans and environmental impact statement addresses future exploration for and development of Bureau of Land Management (BLM) and State of Montana (state) managed coal bed methane gas (CBM) resources and conventional oil and gas. When completed, this document will provide a comprehensive framework for management of the CBM resource.

The planning area encompassed by this document includes the oil and gas estate administered by the BLM within the Powder River and Billings Resource Management Plan (RMP) Areas, and for the state, it is statewide with emphasis on the state-administered oil and gas within the BLM planning area and in Blaine, Park, and Gallatin counties. The planning area excludes those lands administered by other federal agencies, such as Forest Service and Park Service, and the Crow, Northern Cheyenne, and other Indian lands. This 16-county area, referred to as the “CBM emphasis area,” is the area of CBM development interest.

### Planning Issues

A variety of planning issues were identified through a process involving input from the public, other agencies, and BLM personnel. A brief synopsis of each major planning issue category is presented in this summary, but refer to Chapter 1 of this document for a complete listing of all the planning issues within each major planning issue category.

### Air Quality

Planning issues for air quality revolve around the variety of emissions emanating from CBM activities and their effects on the natural and human environments. Of particular interest is the effect on the Northern Cheyenne Indian Reservation’s Class I airshed.

### Cultural Resources

Disturbance of cultural resource sites, effects on the eligibility of cultural resource sites for placement on the National Register of Historical Places, and

identification of cultural areas where CBM development may be incompatible were identified as major planning issues.

### Geology and Minerals

Planning issues associated with geology and minerals include effects on the coal resource and the ability to recover it, drainage of adjacent methane resources, and the effect of water production on methane recovery.

### Hazardous Materials and Waste Management

Use and potential misuse of hazardous materials as part of CBM development was the only planning issue identified for this category.

### Groundwater

Issues associated with groundwater include the quality of produced water and its beneficial uses, potential impacts to domestic water wells from groundwater drawdown by CBM wells, natural springs drying up, water rights, groundwater recharge, and opportunities to inject produced water.

### Surface Water

High sodium adsorption ratio and flow rate effects, water quality, and aquatic resource organisms and habitat were planning issues associated with surface water resources.

### Indian Trust Resources and Native American Concerns

Native American planning issues included effects of discharged water to Indian resources and land uses, traditional values, protection of Indian trust assets, water quality, Class I area, impacts on culturally important sites, increased use of Reservation resources, socio-economic impacts, and tribal members.

### Lands and Realty

Construction effects and infrastructure needs and distribution to current land uses were identified as planning issues.

## **Livestock Grazing**

Livestock grazing and ranching impacts from high salinity water and from increased water quantities, grazing land displacement, and vegetation changes to non-palatable plants were planning issue concerns.

## **Paleontological Resources**

Planning issues are impacts to paleontological localities, vandalism, and unauthorized collecting.

## **Recreation**

Effects on recreational activities and huntable wildlife were identified issues.

## **Social and Economic Values**

Noise, depressed land values, real estate price escalation, agricultural job loss, social services impacts, tax and other revenue, local economy effects, and agricultural productivity are a few of the many socio-economic planning issues.

## **Environmental Justice**

Distributive justice, and the Northern Cheyenne's reliance on operator lease fees, were listed as planning issues.

## **Soils**

Soil planning issues include high sodium effects, erosion from water discharge, irrigated soil impacts, and land subsidence.

## **Vegetation**

High sodium water effects on salt intolerant plants, vegetation community changes, exotic plant and noxious weed infestations, loss of plant productivity, grassland protection, and agricultural land withdrawal are vegetation planning issues.

## **Special Status Species**

Planning issues are loss of threatened and endangered species and mitigation/avoidance measures to protect these species.

## **Visual Resource Management**

Visual degradation and visual pollution are the planning issues associated with visual resources.

## **Wilderness Study Areas**

Effects on wilderness study areas was the only planning issue associated with wilderness.

## **Wildlife**

Fragmentation of habitat, impacts on habitat, effects of water availability, quality, and quantity, vehicle hazards, and migration interruption are wildlife planning issues.

## **Management Actions**

This document presents management common to all alternatives, existing management, and management actions specific to each alternative. For a complete understanding of management actions that would be implemented under a specific alternative, existing management and management common to all alternatives must be considered in conjunction with each alternative.

## **Alternatives**

Alternatives are fully described in Chapter 2 of this document.

Alternative A, the “no action” alternative, would continue existing management direction. Only CBM exploration and development authorized under existing BLM and state management directives would be implemented.

Alternative B, which emphasizes protection of soil, water, air, vegetation, wildlife, and cultural resources, allows for CBM development with special protection of resources.

Alternative C places management emphasis on full development of the CBM resource. It is less protective of natural resources, but still provides for a minimum level of resource protection to avoid loss or degradation of those resources.

Alternative D encourages CBM exploration and development while maintaining existing land uses. Protection of downstream water consumers is also emphasized.

Alternative E is the Preferred Alternative, which combines features of Alternatives B through D. It manages development of CBM in an environmentally sound manner.